CLAIMS

1. A cyclic ketone peroxide formulation comprising one or more crystallizing cyclic ketone peroxides, one or more co-crystallizing compounds which solidify in said cyclic ketone peroxide formulation at a temperature above the crystallization temperature of the crystallizing cyclic ketone peroxide, and, optionally, one or more conventional phlegmatizers.

2. A formulation according to claim 1 wherein at least one cyclic ketone peroxide is selected from the group consisting of cyclic ketone peroxides derived from acetone, acetyl acetone, methyl ethyl ketone, methyl propyl ketone, methyl isopropyl ketone, methyl butyl ketone, methyl isobutyl ketone, methyl amyl ketone, methyl isoamyl ketone, methyl hexyl ketone, methyl heptyl ketone, diethyl ketone, ethyl propyl ketone, ethyl amyl ketone, methyl octyl ketone, methyl nonyl ketone, cyclopentanone, cyclohexanone, cycloheptanone, 2-methylcyclohexanone, 3,3,5-trimethyl cyclohexanone, and mixtures thereof, preferably derived from acetone, acetyl acetone, methyl propyl ketone, methyl isopropyl ketone, methyl butyl ketone, methyl isobutyl ketone, methyl amyl ketone, methyl isoamyl ketone, methyl hexyl ketone, methyl heptyl ketone, diethyl ketone, ethyl propyl ketone, and mixtures thereof, and most preferably derived from methyl ethyl ketone.

3. A formulation according to claim 1 or 2 wherein a co-crystallizing compound is selected from the group consisting of cyclic and non-cyclic, aromatic and non-aromatic, substituted and non-substituted, non-hetero atom-containing hydrocarbons, esters, ester phosphates, cellulose esters, hydrogenated castor oils, and mixtures thereof, preferably from the group consisting of cyclic and non-cyclic, aromatic and non-aromatic, substituted and non-substituted, non-hetero atom-containing hydro-

carbons, such as Paraffin, TerHell 5205, Norpar 15, n-hexadecane, n-eicosane, n-eneicosane, octadecane, tricyclohexylmethane, naphthalene, 1,2,4,5-tetramethylbenzene, 1,4-dihydronaphthalene, 3-methylnaphthalene, hexamethylbenzene, biphenyl, diphenylmethane, 1,2-diphenylmethane, 9-methylfluorene, phenatrene, 9,10-dihydro-phenatrene, 1,2,3,4-tetrahydrophenatrene, and octahydroanthracene, and most preferably from the group consisting of straight chain hydrocarbons, such as Paraffin, TerHell 5205, TerHell 5413, TerHell 5803, TerHell 6206, TerHell 4110, Kerawax 482, Norpar 15, n-hexadecane, n-eicosane, n-eneicosane, and octadecane.

4. A formulation according to any one of claims 1-3 wherein the phlegmatizer is selected from the group consisting of linear and branched hydrocarbon solvents, such as tetradecane, tridecane, Isopar® M, Exxsol® D80, Exxsol® D100, Exxsol® D100S, Soltrol® 145, Soltrol® 170, Varsol® 80, Varsol® 110, Shellsol® D100, Shellsol® D70, Halpasol® i 235/265, and mixtures thereof, the phlegmatizer preferably being selected from Isopar® M and Soltrol® 170.

5. A formulation according to any one of claims 1-4 wherein the co-crystallizing compound separates, preferably in the form of a viscous gel-like mixture and/or in the form of crystals throughout the formulation at a temperature which is at least 5°C, more preferably at least 10°C, and most preferably at least 20°C above the crystallization point of the cyclic ketone peroxide.

6. A formulation according to any one of claims 1-5 wherein the formulation has a total active oxygen content of at least 3% and preferably at most 17%, more preferably at most 12%, even more preferably at most 10%,

and most preferably at most 8% of active oxygen, based on the total weight of the formulation.

7. A formulation according to any one of claims 1-6 wherein the formulation is liquid at either the recommended storage temperature of the formulation or the handling temperature when the formulation is used, whichever temperature is lowest.

8. Use of a formulation according to any one of claims 1-7 in a radical (co)polymerization process or (co)polymer modification process.

9. Process according to claim 8 for the preparation of food-approved polymer products.